

**University of Colorado, Boulder**  
**CU Scholar**

---

Undergraduate Honors Theses

Honors Program

---

Spring 2013

# Education and Female Labor Market Participation in the Middle East: A Case Study of Turkey and Saudi Arabia

Katie Patterson

*University of Colorado Boulder*

Follow this and additional works at: [http://scholar.colorado.edu/honr\\_theses](http://scholar.colorado.edu/honr_theses)

---

## Recommended Citation

Patterson, Katie, "Education and Female Labor Market Participation in the Middle East: A Case Study of Turkey and Saudi Arabia" (2013). *Undergraduate Honors Theses*. Paper 463.

This Thesis is brought to you for free and open access by Honors Program at CU Scholar. It has been accepted for inclusion in Undergraduate Honors Theses by an authorized administrator of CU Scholar. For more information, please contact [cuscholaradmin@colorado.edu](mailto:cuscholaradmin@colorado.edu).

# Education and Female Labor Market Participation in the Middle East: A Case Study of Turkey and Saudi Arabia

Katie Patterson  
Department of International Affairs

April 8, 2013

University of Colorado at Boulder  
Spring 2013

Thesis Advisor:  
Dr. Mohammed Akacem, Department of Economics

Committee Members:  
Dr. Vicki Hunter, Department of International Affairs  
Dr. Robert McNown, Department of Economics

**Abstract**

Education has long been seen as an important investment both for individuals and societies, and has wide-ranging benefits, particularly for women. Economic theory and real-world data find a positive correlation with female educational attainment and labor market participation. This paper examines the link between education and female labor market participation (FLMP) in the Middle East, focusing on Saudi Arabia and Turkey. FLMP is an important indicator of women's status and benchmark of female empowerment in society, and should be encouraged. Using data from the World Bank Development Indicators, this paper finds that Saudi Arabia and Turkey, as well as the Middle East region as a whole, has seen tremendous gains in female education over the last forty years. Yet, this increase in female education has not led to expected increases in FLMP, and rates in the region remain the lowest in the world. This paper concludes that education alone is not sufficient for FLMP in either Saudi Arabia or Turkey, as other factors act as barriers to women's economic participation. These include heavily segmented and imbalanced labor markets, which have limited the economic opportunities for women, and persistent cultural and traditional norms that discourage women from participation in the workforce. These factors have kept economic returns to female education low, and have contributed to the usually low FLMP rates in the Middle East.

## Table of Contents

<b>Introduction</b>	<b>1</b>
The Importance of Women's Economic Participation.....	1
The Puzzle of the Middle East.....	6
A Literature Review of Education's Role in Female Labor Market Participation .....	12
 <b>Methodology and Findings</b>	 <b>15</b>
Measuring Female Labor Market Participation. ....	15
A Look at Education and Labor Markets in Turkey .....	18
A Look at Education and Labor Markets in Saudi Arabia .....	28
 <b>Analysis</b>	 <b>36</b>
The Relationship between Education and FLMP .....	36
Alternative Explanations: Why educational returns might be low for FLMP .....	38
 <b>Conclusion</b>	 <b>52</b>

## **Introduction**

### *The Importance of Women's Economic Participation*

Although overall women today have made tremendous progress in social, economic, and political spheres, this progress has been uneven both geographically and spatially. Women in most Western industrialized countries have similar opportunities to men, though disparities still exist, such as the number of women in public office (less than 20% worldwide) or gender wage gaps (women earn on average 16% less than men in OECD countries). Women in developing countries face even more barriers in society; as women tend have less decision-making authority in households, social mobility, or political rights.

Women are particularly constrained in the economic sphere, with fewer employment opportunities than men, lower wages and benefits, and less economic independence. Recent research has shown the important contribution women can make in the labor markets, and more resources have been invested to help reduce these gender disparities. Recent discourses have emphasized the importance of female agency, which is the ability of a woman to make economic choices to achieve a desired outcome. Increased female agency has far-reaching positive economic and social effects. This paper examines what factors influence the decision for women to participate in the workforce.

The main indicator of women's equality in the economic sphere is labor market participation. Labor market participation has significant implications for women in society, as increased female economic participation has positive correlations with economic growth and productivity. Cross-country data analyses

suggest that as a country develops, increased female labor market participation (FLMP) will lead to a faster growth in country income (World Bank, 2008). A decreasing economic gap between men and women is associated with other positive externalities such as poverty reduction, higher GDP, and better governance. Female economic participation is also an important social indicator, as it remains a benchmark of women's status in society and a measurement of women's empowerment.

Employment gives women greater decision-making within a household, and is linked to lower fertility rates, decreasing infant mortality rates, higher life expectancy rates and increased investment in children's educational attainment, especially for girls (World Bank, 2008). Employed women are more involved than nonworking women in making decisions in relation to their children's health and education (Angel-Urdinola and Wodon, 2008).

Though FLMP worldwide has increased significantly in the last thirty years<sup>1</sup>, the Middle East has had unusually slow growth. Compared to similar regions, the Middle East's FLMP rates are significantly lower than what would be expected based on the region's fertility rates, education levels, and the age structure of the female population. Women's economic participation remains the lowest in the world, with only 25% of women engaged in the workforce, compared to the OECD benchmark of 65% (OECD, 2010).

Even with large gains in human development and increasing economic growth in the region, FLMP has only grown on average by 0.17% annually in the last

---

<sup>1</sup> FLMP has been hovering around 51.2% worldwide according to the World Bank Development Indicators (2012) over the last five years.

thirty years (World Bank, 2007). In 2012, Dima Dabbous-Sensenig, a professor at the Lebanese American University said, “The more women are highly educated, some of them will become motivated, independent young women who will get good jobs. Thirty years ago they didn’t have that option” (CNN, 2012). Although FLMP has increased in the Middle East region, Dabbous-Senseig’s prediction has yet to materialize, as rates have remained disappointingly low despite women’s increased education.

Low FLMP has important economic repercussions, as half of the potential working population is not fully contributing to productivity, leading to decreased economic efficiency. Studies have indicated that women are disproportionately found in low paying jobs, which equates to between three and ten percent decrease in GNP due to efficiency losses (Pike, 1982 and Psacharopoulos and Tzannatos, 1989). Subject to more labor market vulnerability, women have increased chances for facing underemployment, which further decreases the amount women are contributing to the economy.

Why has FLMP remained low in this region? Scholars point to a number of factors that are correlated with FLMP, including cultural norms, political institutions, governance, fertility, education, and wages. This paper will look at one possible factor, education. It will examine the effect of education on female labor market participation in the Middle East, and explain why increased female educational attainment may not translate into increased FLMP in the region by looking at two countries: Turkey and Saudi Arabia.

Turkey and Saudi Arabia were chosen as case studies due to their representation of country differences within the region. Turkey, located between Europe and the Middle East, stands as a link between East and West. A secular democracy, Turkey still contains a predominately Muslim population. Saudi Arabia, in contrast, is one of the most traditional Middle Eastern countries with a long-ruling monarchy and severe restrictions on women's rights. Despite their differences, Turkey and Saudi Arabia share, an increase in female educational attainment over the last thirty years as well as low and stagnant FLMP rates.

Education has long been established as a crucial aspect in a society in theories of human capital and modernization, making the case of the Middle East an interesting puzzle. Education increases the levels of skills, knowledge, and experience of a worker so that one will have increased productivity and be more enabled in the labor markets. Mincer (1958) argued that those with more schooling (along with training and work experience) would have higher wages, increasing the incentive to enter the workforce after obtaining higher levels of education.

Society as whole can benefit from investments in education as a more productive labor force can contribute to higher economic growth and development. Education also has far-reaching societal benefits, with increased female educational attainment leading to decreased fertility and increased female empowerment in the household.

FLMP can be looked at through two lenses, quantitative and qualitative. This paper will look at both lenses by first taking a quantitative look at the measured returns to education for women in the Middle East and North Africa (MENA) as well



as the link between educational attainment and employment status. Another lens will take a qualitative look at educational quality, labor market imbalances, and possible labor market structures and barriers that may weaken the relationship between education and employment.

Several types of indicators can be examined when measuring education. First, one can look at the amount of schooling obtained by individuals. This is represented by educational attainment rates. Literacy rates are also categorized here, though these will not be as accurate in measuring the level of the workforce has, they will still be included. Second is educational quality, which is generally considered to be of more importance than the number of years of schooling<sup>2</sup>.

The quality of education is harder to measure, and represented here by international test scores, fields of study in tertiary education, and public spending on education. Since 1997, the International PISA Assessment has sought to compare student achievement across 70 countries by comparing 15-year olds test scores in mathematics, science, and reading. Though imperfect, this assessment can be useful in providing a benchmark of education quality across countries, and will be useful as a rough estimator of the quality of education in Turkey and Saudi Arabia.

This paper seeks to analyze the relationship between female education and female labor market participation in the Middle East. Although scholars generally agree that increased educational attainment should lead to an increase in female employment (Hanushek, 2008), this paper will find that the case is not as simple in the Middle East. Instead, increased educational investment and rising educational

---

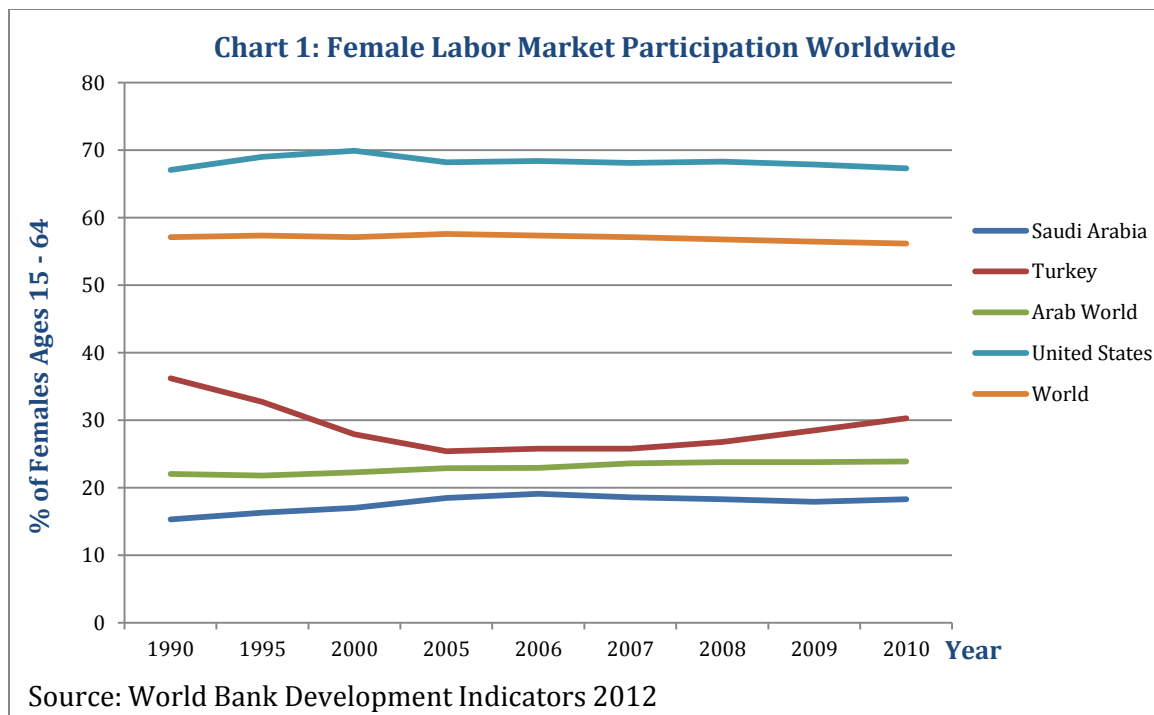
<sup>2</sup> See Hanushek and Kimko (2000) who argued that differences in educational quality could explain up to 40% variance in a country's growth rates.

attainment have not translated into a significant increase in the number of women in the labor market.

First, this paper will take a closer look at the puzzle of the significantly and persistently low female labor market rates in the Middle East. A theoretical framework of the expected role of education in FLMP will then be laid out, examining potential returns to education as the individual, household, and societal levels. Turning to the Middle East, the education of women in Turkey and Saudi Arabia will be analyzed, and the actual labor market outcomes described. The second aspect of the paper will seek to explain why the economic returns to education have remained low for the two countries, pointing to structural labor market imbalances and segmentation along with cultural barriers as the main causes of low returns on education for women.

### *The Puzzle of the Middle East*

Female employment has increased worldwide over the last several decades, with the benchmark being the US and the European Union, where 60 – 65% of women were engaged in the labor market in 2010 (World Development Indicators, 2012). However, in the Middle East low female economic participation has persisted over the last forty years, despite a large decrease in the educational gender gap during the same period. Chart 1 shows the small progress FLMP has made in the Middle East, with rates remaining fairly stagnant over the last twenty years. Turkey does show a slight U-shape trend, which will be discussed later in the paper.



Governments in the region have made admirable steps to invest in female education, with impressive results. On average, MENA countries have spent 5% of GDP on education from 1965 to 2003, compared to 3% in Latin America, a comparable region. Saudi Arabia spends around 6.3% of their GDP on educational investment, which is a significantly high portion of their GDP (World Bank, 2008).

The Middle East region started from a lower educational base in the 1960s and 70s compared to other similar regions, such as Latin America and East Asia. For example, adjusted net student enrollment rate primary and secondary school was 55% in 1970 in the Middle East, compared to 77% in Latin America. MENA has closed that gap to reach 86% adjusted net enrollment rate in 2011, with Latin America having a 95% rate<sup>3</sup>.

<sup>3</sup> Adjusted net enrollment rate is the percent of total school-age population that is enrolled in either primary or secondary education as measured by the World Bank Development Indicators.

Even of more importance to our study is gender parity in education. Most countries in MENA (with the exception of Iraq and Yemen) achieved gender parity in secondary and tertiary education during the 1990s<sup>4</sup>. Two thirds of the countries in the Middle East now have more women than men attending universities, with an average female to male ratio in 2011 101% and some countries such as Saudi Arabia having highly unequal ratios of 112% in 2010. In 2004 Saudi Arabia's ratio was 150%, which hovered in this range between 2003 and 2006 (World Development Indicators, 2012).

This closing of the gender gap in education has arguably reaped important social returns for the region, including decreasing fertility, healthier lives, and longer life expectancies. Although there is variability in the region, fertility rates have dropped from an average of 6.2 in the 1980s to 3.2 in 2010 (World Development Indicators, 2012). The subject of this study, Turkey's fertility has seen one of the more dramatic declines, with a replacement fertility rate of 2.1 in 2011.

Government emphasis on education has contributed to an expansion of school enrollment rates for both boys and girls, with many MENA countries reaching close to 100% primary school enrollment. Adult literacy rates have dramatically increased as well, with an overall rate of 73.6% in 2010, though they still remain low when compared to Latin America and East Asia. The gap between female and male literacy has been decreasing, from a ratio of 0.60 in 1980 to 0.83 in 2003 (World Development Indicators, 2012). Another human development indicator, life

---

<sup>4</sup> *The Road Less Traveled*: World Bank MENA Education Reform Report, 2008

expectancy, has also increased significantly in the region, with a gain of 14 years since 1991.

Though social returns have been significant, increasing education for women has not translated into expected economic returns. Labor market outcomes from schooling have been quite modest, with FLMP rates significantly lower than would be expected based on the region's fertility rates, gross education levels, and the age structure of the female population. Women's economic participation for the region remains the lowest in the world, averaging 25%, compared to 32% Latin America and East Asia (World Bank Development Indicators, 2012). Another issue facing women in the workforce is unemployment. Rates among women remain high, estimated to be 18.35% for the region in 2008, with particularly high unemployment for young, educated women (World Bank Indicators, 2012).

Low female economic participation has high costs for development, as women have the potential to contribute to productivity and economic growth as equally as men. A positive relationship between education and economic growth is common, as individuals with increased education will have higher productivity, be able to find better job positions, and have increased innovation. Lucas (1988) and Romer (1990) argued that an increase in human capital is the main driver of economic development.

Though education for both sexes is important for growth, women's educational attainment is significant on its own. Dollar and Gatti (1999) found that in countries with higher female education, increased promotion of female education has a significant positive effect on economic growth. Although research has yet to

find a definitive answer as to what kind of education contributes to growth or how education increases productivity, empirical evidence shows a positive correlation (see Barro, 1990, and Barro and Lee, 1994). For the Middle East, the expected correlation between education and FLMP seems particularly weak, even though FLMP holds both social and economic benefits. For example, the World Bank's 2010 MENA Gender Report concluded that women's participation in the workforce could have boosted GDP growth in the Middle East region by 0.7% and improved the level of household income by 25% in the last decade if rates had reached predicted levels.

Education has been shown to have a significant positive correlation to labor market participation. Glass (1992) found that the most highly educated countries have on average the highest female economic participation. As more women attain a university education, access to higher paying jobs, better working hours and conditions, and increased benefits should draw women into the labor market as the individual opportunity costs of not working rises.

Education has been proven to be a main driver of economic returns<sup>5</sup>, and as women in particular become more educated, they develop more independent thought, increase their empowerment and decision-making, and become more competitive in the labor market. Looking at countries in the OECD, the probability of entering the labor market for both men and women increases 3% for primary school graduates to 73% for college graduates (Machin and McNally, 2007). Though female education has significantly increased over the last several decades in MENA, why have the economic returns remained so modest?

---

<sup>5</sup> See Nelson and Phelps (1966), Lucas (1988), and Rosenzweig (2010)

Several studies have tried to quantify the returns to education, though this can be difficult due to differences in education systems worldwide. Possible reasons for a weak relationship between education and economic growth include the distribution of education among the population<sup>6</sup>, the quality of the education system, and the distribution of workers among different economic activities. Many MENA countries, for instance Turkey, are experiencing a demographic dividend, with large numbers of young people. This will temporarily decrease LMP as young people may stay in school longer and put off joining the workforce. The returns to education tend to be seen more clearly in the long run, and its payoffs may still be developing. This paper argues that education on its own has not resulted in increased labor market outcomes for women, particularly if women cannot use their education to gain access to the labor market.

Empirically, no clear relationship has been discovered between education and FLMP in the Middle East. In Turkey, data show that unemployment is high among young, educated women. This is unusual, as countries with rising education levels typically see increased female labor market participation among the educated as not only will women have higher potential earnings, but have increased competitiveness when looking for jobs. This high unemployment may be explained by higher reservation wages for educated women, leading to women waiting longer for better jobs with higher wages. A reservation wage is the minimal amount an individual will accept to take a job, and is used to describe the tipping point for

---

<sup>6</sup> Laborers being concentrated in a particular demographic may determine the relationship between education and economic growth.

entering the workforce. Reservation wages will increase with education as workers become more skilled, which will be discussed later on in the paper.

Several indicators suggest that education bias in favor of higher education exist over primary education<sup>7</sup>. If the rate of return to higher education increases faster than the rate of return to basic education, those with higher levels of education will see earnings go up more rapidly than those with lower levels of education. This can lead to an increase in educational inequality, and can affect women's educational attainment rates. Studies have shown that inequalities in schooling do not just exist between genders but also among women (Duman, 2009). This idea applies when looking at the demographic diversity of Turkey, which has rural and urban economies accompanied by low and high rates of educational attainment for girls. This increasing inequality may lead to a small portion of women to be highly educated, while a large majority of women remain uneducated.

#### *A Literature Review of Education's Role in Female Labor Market Participation*

Temple (1999) found that the impact of education is not the same in all countries. How much individuals and governments decide to invest in education can be based on several factors. At the microeconomic level, individuals decide to invest in education based on its returns economically. Increased education should improve an individual's earning potential, thereby increasing the opportunity cost of not working.

---

<sup>7</sup> *The Road Less Traveled: World Bank MENA Education Reform Report, 2008*



Education, as a catalyst for finding better employment, should influence an individual in their decision to join the labor force as well as how long to stay in the labor force. A study by Psacharopoulos and Tzannatos (1989) argued that education should have a positive effect on female labor market participation whether the individual sees education as an investment or a kind of consumption. If a woman considers education as consumption, she will decide to enter the labor market due to higher earnings potential and an increased opportunity cost of not working. On the other hand, if a woman seeks education as an investment, increasing education should have a positive effect on FLMP as women have to enter the labor market to recoup the opportunity costs of education. Whether viewed either way, Psacharopoulos and Tzannatos concluded the increased education would be correlated with increased labor market participation (Psacharopoulos and Tzannatos, 1989).

Psacharopoulos and Tzannatos do acknowledge that education's effect on how long a woman participates in the labor market depends on her target income, for as her earnings potential increases due to education she may reach her target income sooner and therefore spend less time in the labor market than if she was uneducated. They argue that empirical studies tend to show that FLMP is more responsive to wage changes, leading them to conclude that educated women will have a higher participation rate than less educated women.

On a household level, families decide to invest in female education based on a variety of factors including household income; educational attainment and occupations of the parents; family size; and the composition of the family (Duman,

2009). Though educations in GCC countries like Saudi Arabia are usually free, opportunity costs still exist, as women are potentially postponing marriage or entry into the labor market in order to continue their education.

On the societal level, increased education generally has a positive correlation with economic growth. Countries with higher levels of economic growth tend to have more educated workers<sup>8</sup>. Education also has positive externalities, leading to decreased fertility rates, increased income, and a more productive labor force. Countries have long realized the benefits of investing money into educational systems. Countries in the Middle East have attempted to make education mostly free when possible, making the investment of education the opportunity cost of time and any potential lost wages while in school.

Low economic returns to education can have self-perpetuating consequences as households adjust their decision-making when women have difficulty finding employment after graduation. An “under-participation trap” can develop between a household’s investment in education and work force participation, particularly for higher education as an individual could decide between marriage, entering the labor market, or continuing in school. High female unemployment or low female wages can reinforce a household’s decision not to continue investing time or money in female education as there will be few opportunities for women to participate in the formal labor market after school<sup>9</sup>. This is reflected in the lower enrollment rates for females compared to males, and is later discussed when considering education and labor market outcomes for poor urban women in Turkey.

---

<sup>8</sup> *The Road Less Traveled*: World Bank MENA Education Reform Report, 2008

<sup>9</sup> Taken from the World Bank Report No 48508: Labor Statistics from Turkey (2009)

## Methodology and Findings

### *Measuring Female Labor Market Participation in Saudi Arabia and Turkey*

Several clarifications must be made before looking at the labor markets of Saudi Arabia and Turkey. First, the analysis is limited to the formal sector in both countries, and is mainly focused on educated workers. The informal sector is difficult to measure (although an important part of female employment), as workers are not working for a salary or regulated by the government. This is most relevant for Turkey, as it contains a large informal sector in its economy (mainly due to its agricultural sector) while Saudi Arabia has a very small informal sector.

Female employment in agriculture remains high in Turkey, and contributes to a different perspective on FLMP than by looking at the formal sector alone. In small towns or rural areas of Turkey, only between 16% and 53% of employed women are engaged in non-farming labor (Gündüz-Hosgör and Smits, 2006). Because we are interested in the effect of education on the LM, the paper will exclude the informal and agricultural sectors where possible<sup>10</sup>.

Secondly, the Gulf States tend to be characterized by large populations of expatriate workers. This is true for Saudi Arabia, and tends to cause distorted labor markets between nationals and non-nationals. For our analysis, we will ignore the population of expatriate workers, and focus on nationals only. Expatriate women tend to have higher employment rates than Saudi women, partly due to the restrictions on immigration by Gulf States, as these countries require most

---

<sup>10</sup> Unfortunately, due to data limitations, the agricultural sector is included in some statistics. These will be noted throughout the paper.

immigrants to have a job already lined up before entering the country. Expatriates will also have different skill sets, qualities of education, and social norms than Saudi women. This may affect an expatriate's decision to enter the labor market and skew the findings.

It is also important to make distinctions in employment. Not all employment is the same, and the type of employment women are engaged in varies widely. Findings have shown that overall, women are more likely to be underemployed, employed part-time, or engaged in vulnerable work. Vulnerable work is defined as being more at risk to economic cycles and poverty (ILO, 2010). Women have a higher chance of being underemployed, a problem that should not be overlooked, as this affects the productivity of the economy as a whole as well as decreasing the returns to education. The effect of underemployment on the returns to education will be addressed later in the paper. Women also tend to be paid less than their male counterparts and work longer hours. For our purposes, we will merely recognize that pure employment rates alone will not give a clear picture of gender inequalities in the labor market.

Discouraged female workers are also not accounted for when looking at unemployment rates. Unemployment rates do not show female workers who are being underutilized at their current jobs or only are able to find part-time work, though they would like to work more. The ILO estimated that though Turkey's female unemployment rate in 2007 was 10.2% (including informal sectors), the female labor underutilization rate was 36.3% of those employed (ILO, 2010).

The ILO defines labor underutilization as persons unemployed; time-related unemployment (part-time workers); persons employed with low earnings; persons employed with underutilized skills for their education level; discouraged workers; and other persons who are not actively seeking work. Though the scope of this paper is not large enough to factor in labor underutilization, it is important to recognize that its prevalence is large in the Middle East, and has a tendency to be higher for women than men.

The last note on employment indicators is in regards to employment status. For the purposes of this paper, we will be looking solely at wage and salaried workers, as they tend to represent educated workers engaged in the formal sector. It is also important to note the positions that women hold in employment. Men have a greater tendency than women to be owners of businesses, in the MENA region, where the difference in percentage points ranged from 10.5 to 5 on average (ILO, 2010). In the two countries examined, men are also more likely to be employed in industry<sup>11</sup>, where as women are much more likely to be employed in services<sup>12</sup>.

Data are drawn from the International Labour Organization's Key Indicator of the Labour Market (KILM) from 2012, also used by the World Bank in their World Development Indicators, unless otherwise indicated. The most current data is used when available, although some sections contain missing data.

---

<sup>11</sup> In 2009, 23.3% of the male labor force was in industry versus 1.90% of the female labor force in Saudi Arabia and 29.1% of men versus 15.3% of women in Turkey (World Development Indicators, 2012).

<sup>12</sup> In 2009, 98.8% of women in Saudi Arabia were employed in services and 46.8% of women in Turkey (ibid).

*A Look at Education and Labor Markets in Turkey*

Turkey has seen a transformation in the last several decades, as it has industrialized and moved into the modern world. A secular democracy, with talks of EU accession during the last ten years, Turkey has been seen as a leader in merging Islam and democracy. Productivity, wages, and production have all increased, with a growth in education as people have migrated out of agriculture and into urban areas. In 1985, the urban population surpassed the rural population, marking a change in Turkey's development.

The rapid increase in industrialization has led to a segmentation of Turkey's labor market, into a formal and informal urban sector. Turkey's large informal sector contains a still prevalent agricultural sector as well as a lack of female urban employment opportunities. After women migrated from the countryside, many women are forced to become housewives or find other informal work. A recent World Bank report concluded that a migration out of agriculture to urban areas corresponds with a withdrawal from women in the labor force more often than not<sup>13</sup>. A reason why Turkey is an interesting case to examine is that female tertiary educational attainment rates have seen particularly large increases, even while FLMP remains low.

Because of Turkey's industrial development, a decrease in FLMP was expected as women migrated into urban areas and moved out of agriculture. The skills needed for formal employment in cities are different than in the agricultural sector, so one would expect to see a temporary decrease FLMP, as workers have to

---

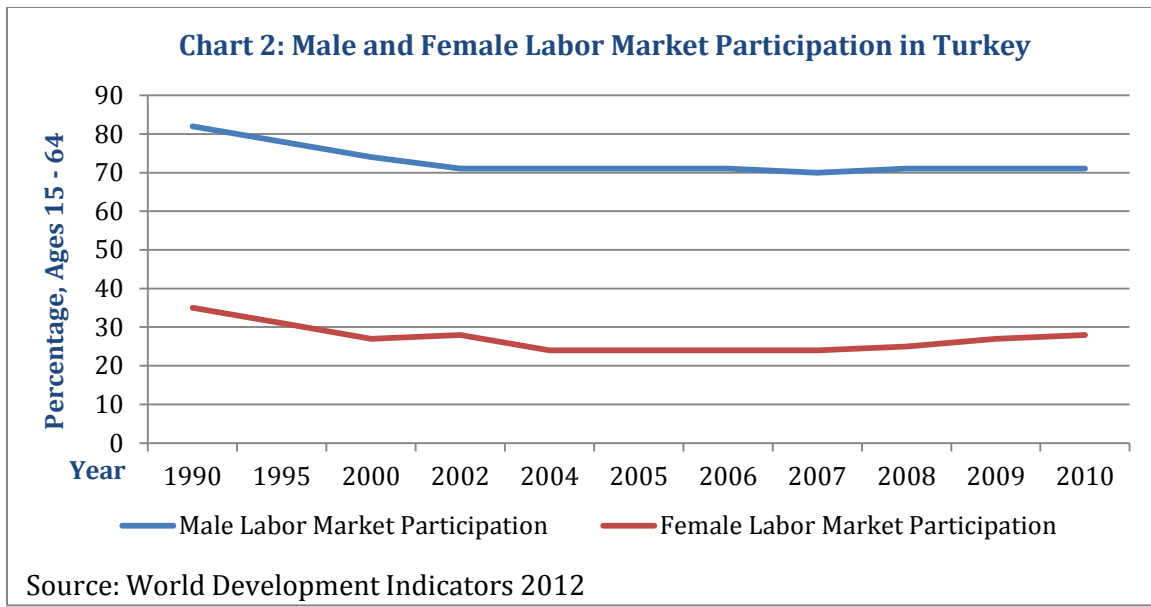
<sup>13</sup> Taken from the World Bank Report No. 48508-TR (2009): Turkey Labor Statistics

invest in learning new skills to be able to enter the new labor market. The data in Turkey reflects this decrease, as rates decreased from 15% from 1990 to 24% in 2004.

This concave shape fits well with the widely discussed U-shape hypothesis of FLMP, where FLMP temporarily decreases until women become trained to work in the new labor market (Paxson, 2000). This U-Shape curve is often seen as a country develops, due to the changing demand of jobs as the country industrializes and moves away from agriculture. However, on closer examination, the case for Turkey is not as simple as a U-Shaped FLMP curve.

For one, this rural to urban migration occurred in the 1980's and 1990's, yet rates continued to decline until 2004, and remained stagnant until 2007. Rates are still low, though they have seen a slight rise in the last five years. Ozbay (1994) explained Turkey's drop in FLMP by looking at urban migration rates for women, and found that women had an inability to find employment after migration, often becoming housewives or seeking informal employment.

However, an entire generation has passed, which is sufficient time to give women the opportunity to be integrated into the urban labor market, and one would expect a corresponding increase in FLMP, particularly as access to education has increased. Chart 2 shows that rates have risen in the last five years, up 4% from 2007. Though this increase is significant and hopeful for the women in Turkey, rates are still unusually low given the educational attainment of women in Turkey.



Tansel (2001) found that economic growth and increased educational attainment should lead to more women joining the labor market in Turkey. Female labor market rates indicate an increase in the percent of college-educated women joining the workforce over the last ten years, and a decrease of the percent of primary-educated women. Chart 2 shows that overall; FLMP and Male LMP rates have actually declined since the 1990's. Although Male LMP has remained steady over the last ten years, FLMP has not yet regained previous levels.

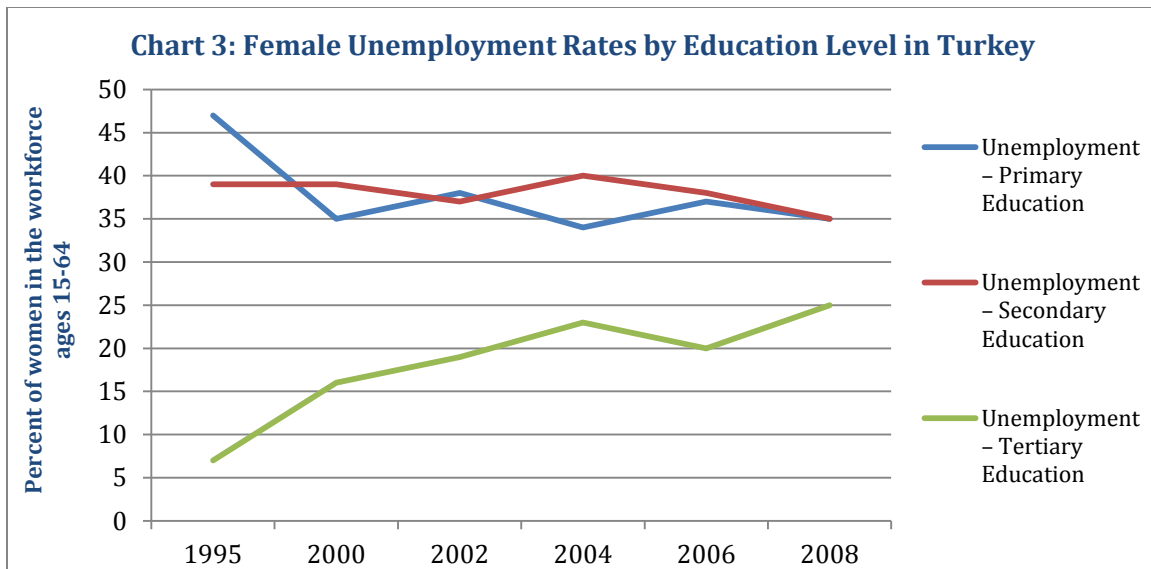
Turkey's dualistic economy is apparent in the female labor market, with 49% of employed women located in the agricultural sector. As more women moved out of agriculture as development occurred, workforce exclusion became more prevalent. In Turkish cities, only 1 out of 5 women are formally employed (KEIG, 2009). The same study found that over six times as many non-agricultural jobs are created for men compared to women (ibid).



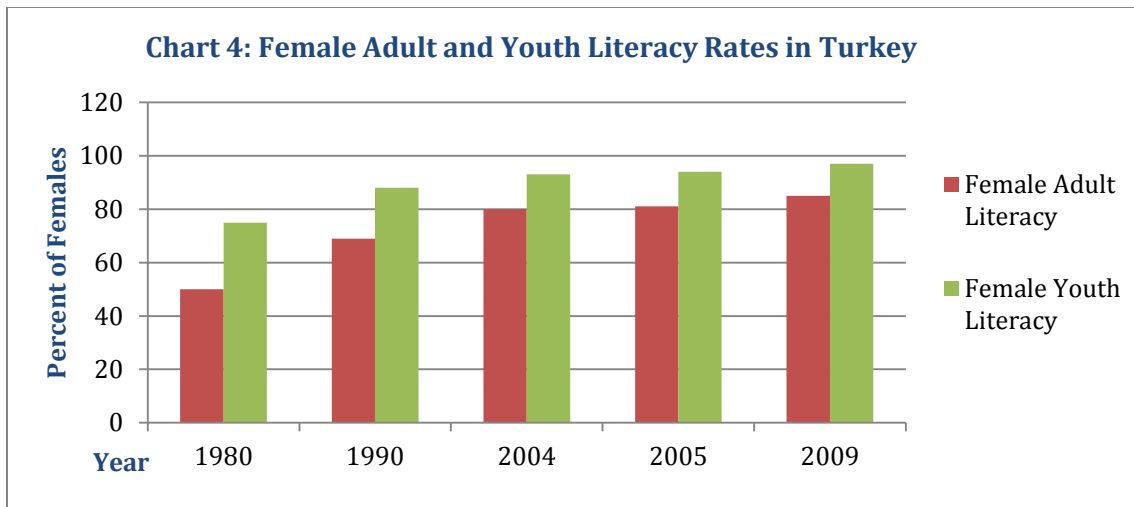
As noted above, the informal sector is not accounted for here, though it is important to recognize that the informal sector does contain educated workers as well as non-educated workers. One study found that as high as 34% of female high school graduates and 14% of female university students are employed in the informal sector (Aydin et al, 2010). This distribution is much higher for women than men, with the majority of men in the informal sector having attained only primary education.

As discussed earlier, an education bias favoring higher education may lead to increased inequalities in both schooling and employment. A large gap in employment exists not just between sexes, but also among women. Although a high percent of women occupy top managerial and executive positions in firms, others work in poor conditions with long hours and low pay.

According to ILO statistics, 12% of Chief Executives in Turkey are female, a level on par with Germany (ILO, 2008), yet only 23.5% of women were employed in total in 2009. The number of women with higher education has increased significantly in the last thirty years, from 7.2% to 31.1% in 2009, contributing to the increase in women in managerial positions as they have become more competitive with men (Ince, 2012), yet this labor distribution exacerbates inequality among women in the labor market.



Turkey's high unemployment rates among women suggest that labor market structures are not conducive to female employment and that jobs remain highly competitive (see Table 1). High female unemployment also suggests that Turkey has highly segmented labor markets, as women are limited to a particular set of occupations. A set of econometric analyses done by Tansel (2002) found that urban female unemployment was about two and a half times larger than reported female unemployment rates in 1991 and 2000. This contributes to the idea of the discouraged worker effect, which may be substantial in Turkey and the Middle East region due to consistently high female unemployment rates. Many women may give up looking for employment due to difficulty finding appropriate jobs and simply exit the labor market.



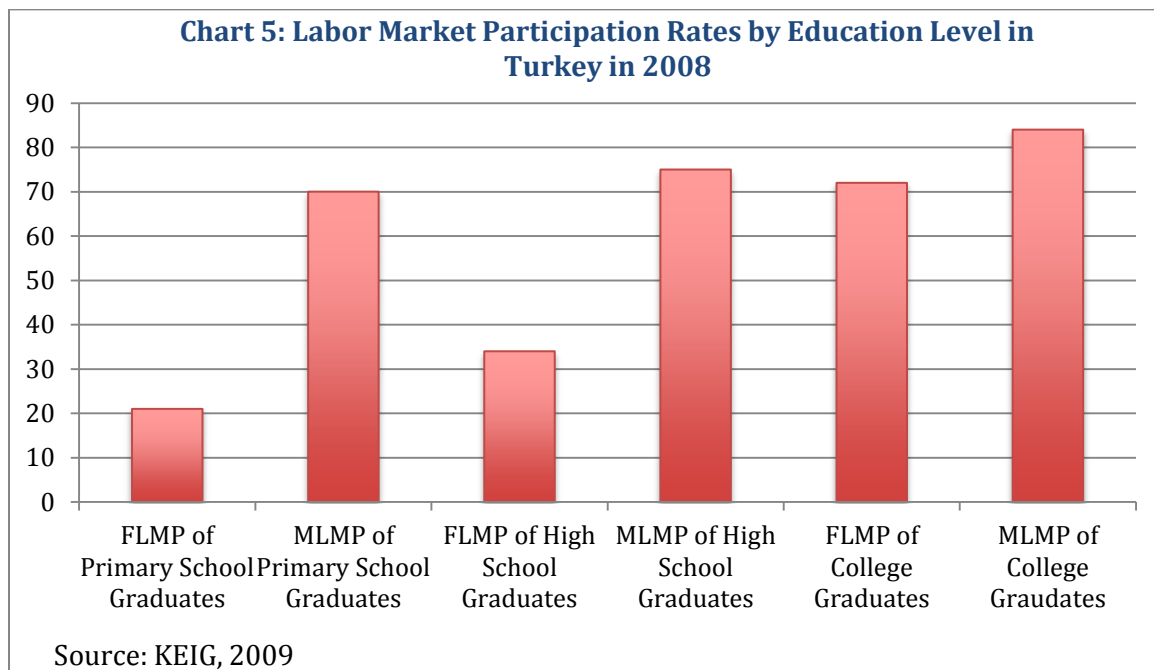
How does Turkey's education compare to the region and the rest of the world? In general, Turkey's educational attainment and enrollment rates are still lower than the GCC or other European countries, though it has made dramatic gains, particularly in tertiary education. Literacy rates for adult women have increased from 24% in 1970 to 85% in 2009, with literacy rates remaining low in rural areas. Enrollment in primary, secondary, and tertiary education has also increased, though only 26% of women have the equivalent of a high school degree (OECD Better Life Index, 2012).

Turkey has made several educational reforms that have contributed to increased female access to education. In 1997, mandatory education increased from five years to eight, which helped increased enrollment rates by 86% in 1997 and 96% in 2002. Conditional cash transfers have helped rural girls stay in school, and have raised completion rates. This is particularly important in rural areas, as Turkish is a second language to some ethnic groups.

It is apparent that there is a gender gap in education in Turkey, as women have a 13.3% lower literacy rate than men (80.6% versus 93.9% for men). Women

also have lower enrollment rates, with a 91.8% enrollment rate for females compared to 100% for males in primary education. A 9% difference exists between men and women obtaining a high school education (35% of men versus 26% of women). Lack of access to education is greater in rural areas of Turkey, and consequently we see lower female enrollment rates and higher illiteracy rates.

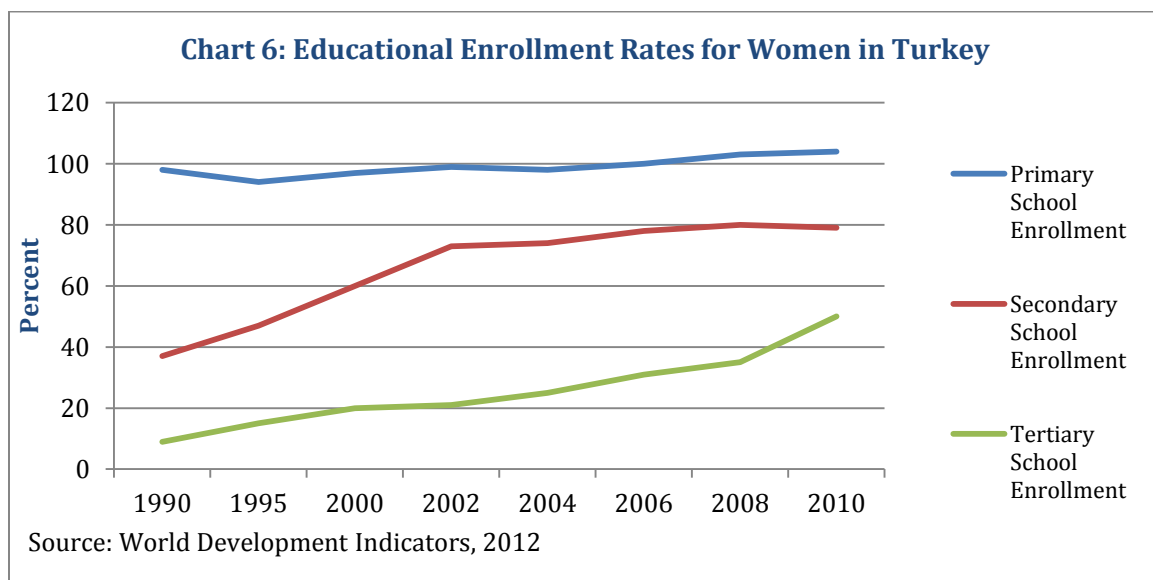
Education does not seem sufficient in and of itself to encourage women to join the workforce, though its link appears stronger than in Saudi Arabia. Chart 5 shows male and female labor market participation rates by education level in 2008. The gaps are large among genders in primary and secondary education, indicating that education alone will not result in women joining the labor market. Tertiary education shows a much smaller gap, reflecting Turkey's labor inequality among women<sup>14</sup>.



<sup>14</sup> Turkey has a percent of women Chief Executives on par with Germany's, indicating that Turkey has a small sector of educated female labor that is competitive with men and does not seem to follow normal patterns seen in MENA.

Though more women have joined the labor market in recent years, there is still a large overall disparity between men and women in the labor market and overall FLMP rates are under 28%, which is far below what is expected given Turkey's development. Segmented labor markets seem to fit best with the differences in employment by education. In Turkey, the small portion of highly education women, many which occupy executive level business positions, decreases the gap between educated men and women. Large gaps exist for those with secondary education, suggesting competition for jobs among these female workers is higher than those with tertiary education.

Turkey spends around 3% of their total GDP on education, an amount similar to Latin American or Asian countries. Chart 6 shows enrollment rates over time in Turkey, with significant increases in enrollment in secondary and tertiary education. Secondary school enrollment has increased from 37% in 1990 to 79% in 2010, a 42% change. Tertiary enrollment has also increased at a similar rate, up 41% from a mere 9% of women in 1990 to 50% in 2010.



The ratio of girls to boys enrolled in school has been increasing consistently, with a 99% ratio for primary education and 92% for secondary school in 2010. Tertiary education has a more unequal ratio of 82%, yet this rate has been increasing, up from 75% in 2006. This gender parity in education gives women a chance to be as competitive as men once they leave school and decide to join the labor market, but the ratio of FLMP compared to enrollment rates between men and women remain vastly different.

The quality of education in Turkey remains a severe constraint to labor market outcomes, as it varies from region to region. In rural areas, many girls do not learn Turkish, which puts them on at a disadvantage. Turkey partakes in the Programme for International Student Assessment (PISA), which can provide a benchmark of Turkey's educational quality. The average student scored a 455 in reading, math, and science, which was lower than the OECD average of 497. Compared to the rest of the MENA region, Turkey performed above average (OECD Index for a Better Life, 2012). Girls in Turkey outperformed boys by 15 percentage points, a fairly significant amount, suggesting that they can and do perform well in school and should have a competitive chance in the labor market.

The percentages of the male and female labor force by education level are very similar for primary and secondary education. The percent of the labor force with only primary education has been decreasing, which is consistent with increasing education attainment for both men and women in Turkey. A less dramatic effect is occurring at the secondary level for Turkish men, as more men move from primary education to secondary education. The percent of men in the

labor market with a primary education decreased by 76% in 1997 to 64% in 2010, reflecting rising education access and attainment. The percent of men with college educations in the workforce doubled between the same years.

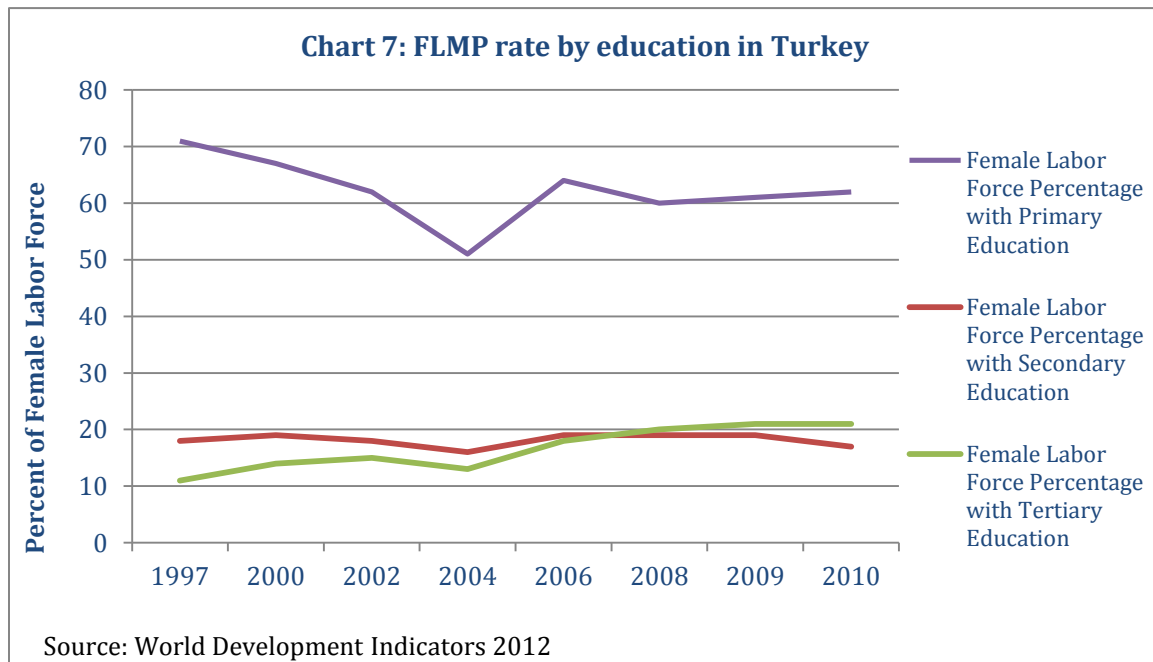


Chart 7 is useful in comparing female labor market participation by educational level in Turkey. The percent of women in the labor force with secondary education levels has remained constant the last 15 years. The biggest positive change is seen in female labor force percentages for tertiary levels of education. As more women in Turkey have received college degrees, it is clear that larger numbers of them are entering the workforce. Although at first glance this reflects highly positive returns to education for women, taking into consideration the overall college enrollment rates for women (50% in 2010) this percent is quite small. This number also includes women who have labor underutilization and does not count those who have left the workforce due to the discouraged worker effect, making this percent less significant than it seems at first glance.

In Turkey, male and female unemployment are similar, with male unemployment at times being higher than female. This is misleading, as many women have exited the labor market due to an inability to find employment in the formal sector (Tansel, 2002). In Chart 7, women employed in agriculture are included, which further decreases the gap in unemployment<sup>15</sup>.

### *A Look at Education and Labor Markets in Saudi Arabia*

Saudi Arabia has seen transformative growth since oil was drilled in earnest in the 1970's. A member of the Gulf Cooperative Council (GCC), a set of six oil-exporting countries, Saudi Arabia contains the world's largest oil reserves. Since the discovery of oil, the country has experienced rapid economic growth and oil currently accounts for 90% of its exports and it finances 75% of government revenues. With a GDP per capita of \$24,434, it is a high-income country that has transformed from an underdeveloped desert kingdom to a wealthy modern monarchy, characterized by a large public sector funded by oil rent and a labor market made up of 80% expatriate labor.

A typical characteristic of the oil-rich countries in the region, the country has a large public sector, with workers receiving high pay and generous benefits. These benefits are extensive, and include few or no actual taxes, free education, health care, housing assistance, and free or discounted gas and utilities. Salaries are several times higher than private-sector equivalent jobs, with shorter working hours, longer

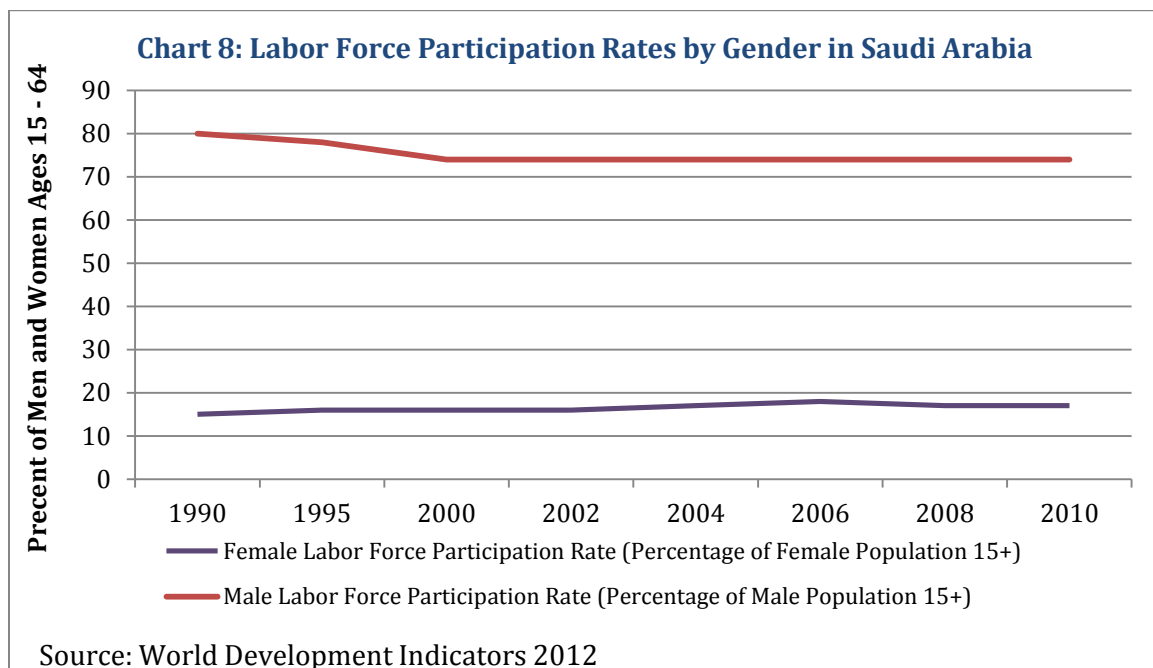
---

<sup>15</sup> In 1990 employment in agriculture made up 48.5% of female labor. This has been halved, and was 23.7% of female labor in 2010.



holidays, and generous pension packages that are highly desired (Forstenlechner and Ruledge, 2010).

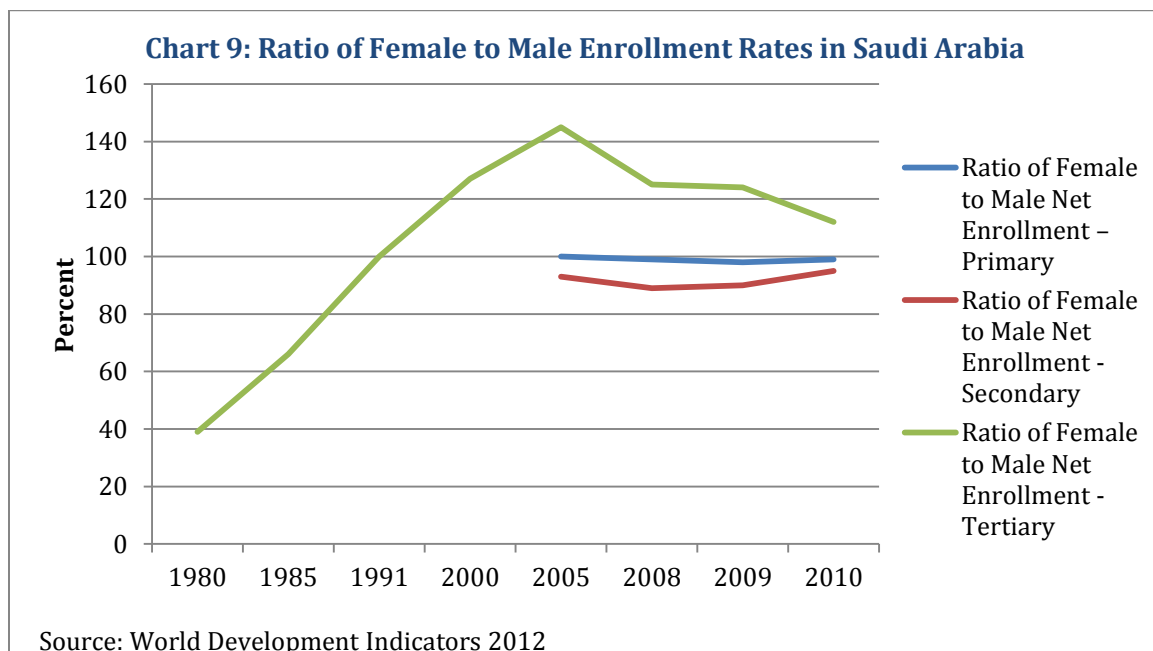
The public sector has drawn in high numbers of women, as it is viewed as more acceptable and appropriate employment than private sector jobs. Women are more willing to wait for a job in the government rather than joining the private sector. Some studies suggest that women are willing to wait up to several years for employment in the public sector<sup>16</sup>.



With a large influx of oil wealth, Saudi Arabia invested heavily into education. Saudi Arabia spent 19.3% of government expenditures towards education in 2008, and 5.3% of the country's GDP going towards education, which is 2% above Latin America or East Asian countries spending percentages. The ratio of female to male net enrollment rates in primary and secondary education was 99% and 95% respectively in 2010.

<sup>16</sup> From the World Bank Education Reform Report, 2008

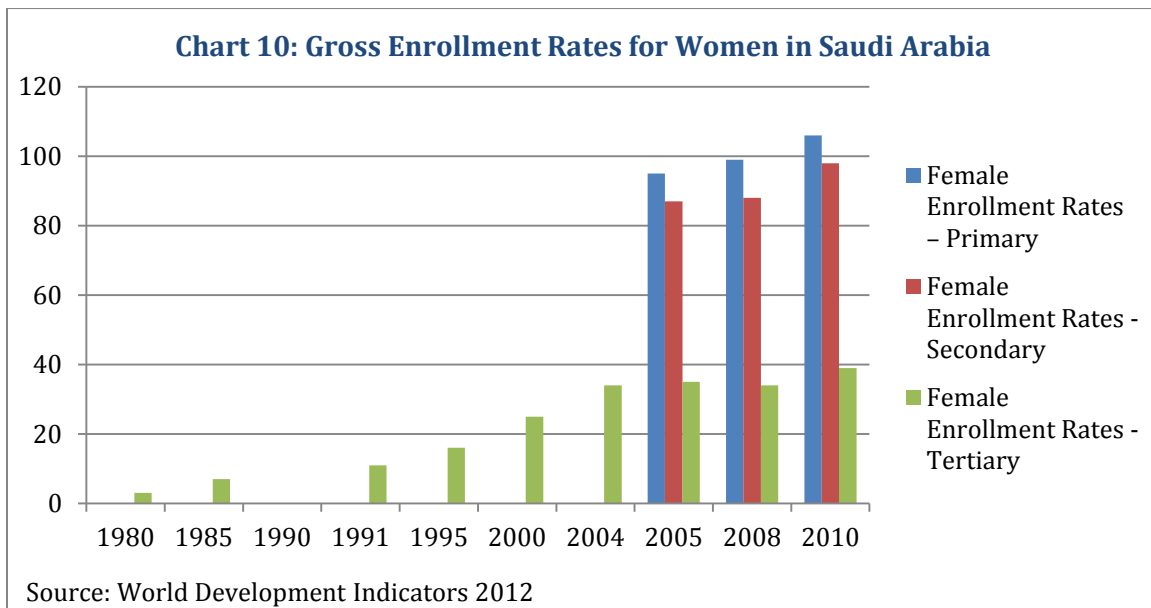
Saudi Arabia has improved its literacy rates dramatically, with 97% literacy for female youth and 81% for female adults. Other indicators, including primary and secondary enrollment, has increased to significant levels, with 106% and 98% enrollment ratio respectively<sup>17</sup>. The decreasing ratio of female to male enrollment for tertiary education is due to an increase in the number of men receiving college educations as well. Male tertiary enrollment rates have increased from 22% in 2003 to 35% in 2010.



The quality of education in Saudi Arabia has mixed results. According to a World Bank Report on Education Reform in MENA (2008), 90% of instructional time is spent towards religious education and moral instruction in grades seven and eight. Though Saudi Arabia has spent a great deal of money on its education system, it has not done enough to prepare graduates for employment. UNESCO's 2008 report ranked Saudi Arabia 93<sup>rd</sup> out of 129 countries in its quality of education index, a

<sup>17</sup> Gross Enrollment Rates can exceed 100% because of the inclusion of both over-aged and under-aged) who have early or late school entrance or grade repetition.

reminder that the country still has a long way to go in creating an effective education system.



Increasing literacy rates and access to education for women reflect in the FLMP, yet the change is small. Chart 10 shows the large increase in gross enrollment for women, with an 11% increase in secondary enrollment from 2005 to 2010 and a 14% increase in tertiary education enrollment in the last ten years. Tertiary education has expanded rapidly in the last thirty years, with 3% of female enrolling in college in 1980, to 11% in 1991 and 25% in 2000. In 2010, female enrollment was at 39%<sup>18</sup>. Though the number of women receiving secondary and tertiary education has increased, the FLMP rates have only slightly changed; leading to the conclusion that education has not led to increased FLMP.

Women tend to be more affected by poor education, as they already face limited employment opportunities and competitive labor markets due to social norms

<sup>18</sup> Compare with the US 2011 female tertiary enrollment rate, which was 72.3% (Current Population Survey, 2011).

regarding appropriate career fields. Women face social expectations to find employment in public administration, medicine, social services, or education, which is reflected in the number of these degrees obtained by women. Of all female university graduates in 2007, 93% had degrees in education or social sciences<sup>19</sup>. Until recently women were banned from studying fields such as engineering, law, or architecture (Baki, 2004).

It is clear that Saudi Arabia's education system has consequences for both males and females, but women appear particularly vulnerable to high unemployment and labor market exclusion. In 2008, 45.8% of the female labor force aged 15 – 24 years old was unemployed. Unemployment for females in general has been high, with rates remaining in the double digits during the last ten years. In 2009, female unemployment was at 15.9%. This rate does not count discouraged workers, or women who have left the workforce due to a lack of opportunities for employment, which would cause the unemployment rate to be much higher if factored in.

Women make up the majority of Saudi Arabia's unemployed, consisting of 75.4% of those unemployed in 2008. Though women may have been more vulnerable during the worldwide economic downturn in the late 2000's, causing a spike the percent of women in the overall workforce who were unemployed, the percent was not much better in 2006 at 64.3%. Early in the 2000's, the percent of women who made up the unemployment rate was in the mid to high forties (49.6% in 2002 and 43.0% in 2000).

---

<sup>19</sup> *The Road Less Traveled: World Bank MENA Education Reform Report, 2008*

One of the most initially surprising findings of the Saudi labor market is the high unemployment rate for those with tertiary education regardless of gender. Overall, the unemployment rate was 37% in 2008 and 43.6% in 2009. These are high unemployment rates, and could reflect unrealistically high reservation wages for educated workers due to generous public sector salaries. A number of factors can make up an individual's reservation wage, which is discussed later in the paper.

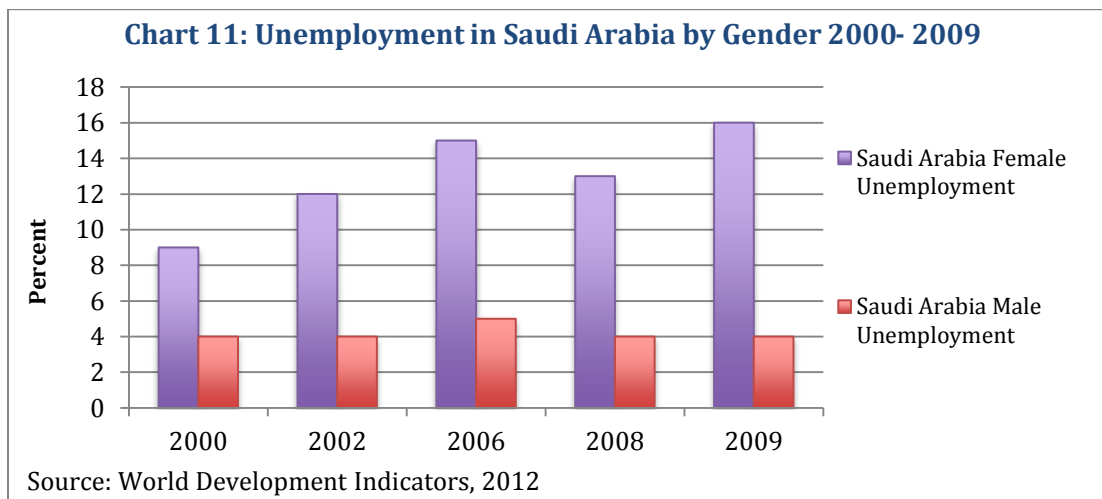
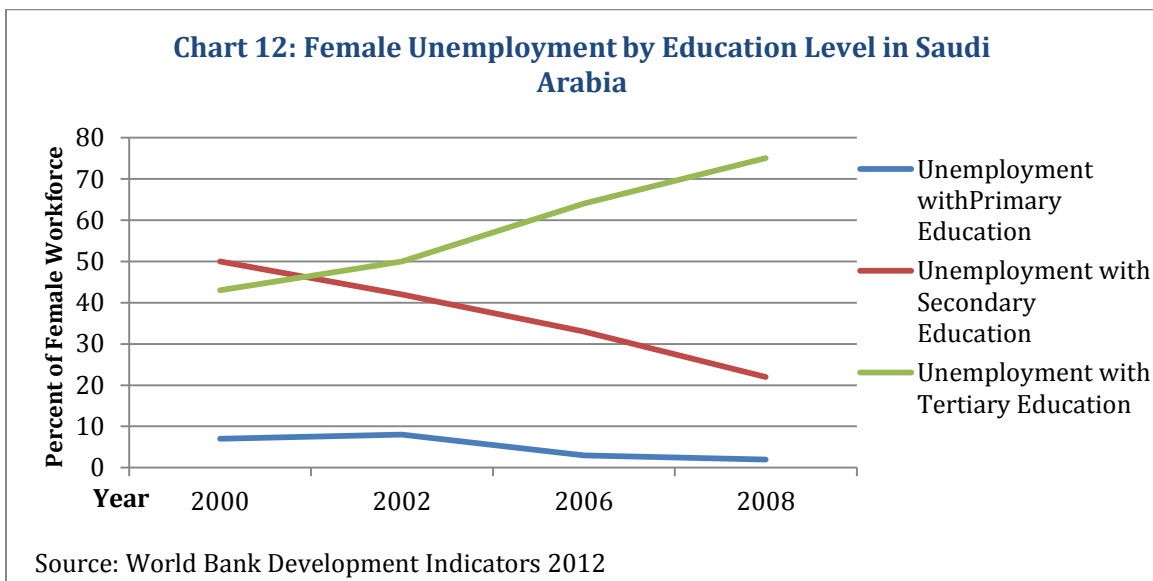


Chart 11 shows the wide gender gap in unemployment in Saudi Arabia, and this gap may be even higher due to the discouraged worker effect. Both male and female nationals face high unemployment rates overall, and these rates may be partially due to the reluctance of private employers to hire nationals. Government programs have implemented quota requirements for private employers to encourage the hiring of more nationals. These programs have only increased labor market distortions and make obtaining more education ineffective at helping graduates find employment after school. Other reasons for these high rates may include a combination of factors, including high female reservation wages, limited labor

mobility, high labor market segregation, and cultural barriers. These factors will be discussed later in the paper.

Saudi Arabian labor market participation rates have remained fairly constant in the last ten years, averaging around 50% overall, with a few percentage points of change from year to year. Chart 8 shows that in the last sixteen years, FMLP has only changed less than two percent, from 15.6% in 1995 to 17.4% in 2010. Though FLMP has remained fairly constant over the last sixteen years, educational opportunities have greatly expanded for women in Saudi Arabia.



Oil-producing countries in the Middle East are at an increased risk for labor market distortion, in part due to large populations of expatriate labor in the private sector. Saudi Arabia has around 8.8 million expatriate workers, compared to 3 million working Saudis (World Bank, 2009). The effect of expatriate labor on Saudi Arabia's labor market is extensive, and is discussed further in the next section.

The high unemployment rates for both male and female Saudi nationals shown in Chart 12 have prompted government policies to provide incentives to hire

nationals, causing market distortions in wage rates and hiring. Female unemployment for women with tertiary education increased rapidly from 2000 to 2008. A combination of increasing labor supply and stagnant labor demand has influenced these high unemployment rates.

The idea of “localization” is occurring in all six of the GCC countries and highlights the inability of young nationals to compete with foreign workers due to a lack of appropriate qualifications or skills training. Saudi Arabia has initiated government programs that seek to replace expatriate workers with nationals, through various employment quota targets. The purpose of these programs is to increase nationals’ private sector employment, reduce the reliance on foreign workers, and retrieve the income lost to remittances (Looney, 2004). The persistent high unemployment of nationals has repercussions for the GCC governments, and has been the cause of some recent unrest in the region as the public sector has not been able to absorb the growing labor force, and private employers are still resistant to hiring large amounts of nationals (World Bank, 2010).

A recent report published by the OECD mapped the PISA scores of students in 65 countries with various levels of resource endowment, including oil-rich countries like Saudi Arabia, Qatar, and the UAE with resource-poor countries such as Israel. The results were a significant negative relationship between amount of money being generated from natural resources and the test scores of high school students. In 2007, Saudi Arabia (along with other GCC countries) had lagging PISA scores relative to their large oil wealth. Other MENA countries, such as Jordan or Israel, had higher test scores but little resource wealth. The study found a -0.433

correlation between the share of national resource rents in GDP and performance on the PISA (OECD, 2012). These results add to the evidence that oil wealth in countries like Saudi Arabia may have a negative effect on the quality of education.

## **Analysis**

### *What can be Concluded About Education and Female Labor Market Participation?*

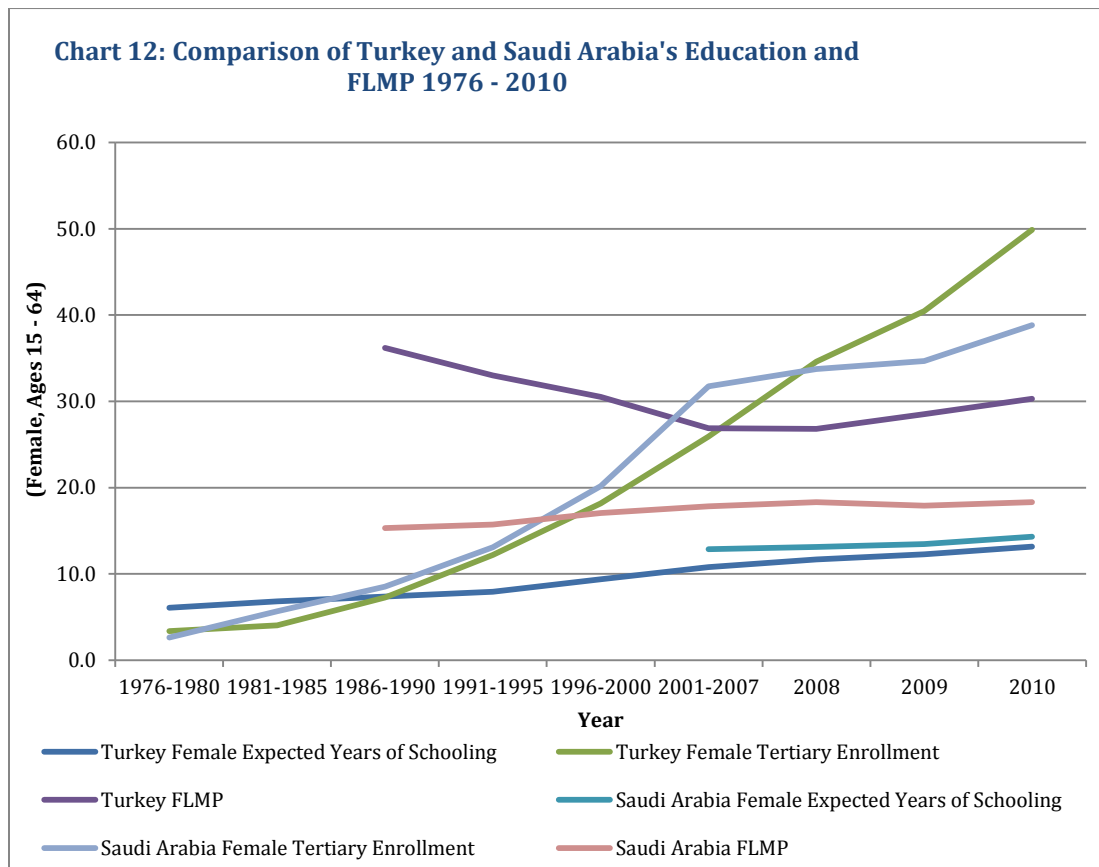
It is clear from the data presented above that there have been large investments in female education in both Saudi Arabia and Turkey. The results from this investment are still developing, as education has more long-term benefits. Decreasing fertility rates, longer life expectancy, and other positive social benefits have all been seen in both countries. Unfortunately, this increase in education has not translated into similar economic gains for women, as FLMP rates still remain unusually low.

Turkey and Saudi Arabia present two different cases, as they have vast differences in governance, GDP, economic output, and demography. Yet the outcomes for both these countries are similar; though female education has increased over the last thirty years, FLMP rates have yet to improve and still remain low.

Chart 12 offers an overview of Turkey and Saudi Arabia's Education and FLMP. Expected years of schooling for women have increased dramatically in both countries. Turkey's expected years of schooling doubled from 1970 to 2010. Although data for Saudi Arabia are unavailable before 2000, expected years of schooling have also risen. Tertiary education for both countries has consistently



risen, and has outpaced job creation. The disparity of Saudi Arabia's FLMP rate (expressed in percent) and tertiary education enrollment rates are significant.



Saudi Arabia's rates have been between ten and fifteen percent lower than Turkey's, but this difference can be attributed to the strict cultural traditions that still exist in Saudi Arabia. Only recently granted the right to drive and vote in parliamentary elections, women in Saudi Arabia have been limited in what employment opportunities they could pursue. Women still need the permission of a male guardian or husband to even join the workforce, and these norms and attitudes may account for the difference in Turkey and Saudi Arabia's FLMP.

*Alternative Explanations: Why Educational Returns Might be Low for FLMP*

Economic payoffs from education are usually determined by the outcomes in the labor market. If labor market outcomes are weak in the region, many educated workers may be unemployed or employed in low-productivity (and low-paying) jobs. Markets are not conducive to maximizing the economic returns in the Middle East region in particular due to low economic growth, the dominance of the government as an employer, and the relatively high cost of being a private sector business (World Bank, 2008). Unemployment averages 14% higher in MENA compared to every region of the world besides Sub-Saharan Africa (World Bank, 2008). This may be due to unrealistic wage expectations from nationals as well as a mismatch between nationals' job skills and employer demand.

The Middle East has seen an increase in the labor supply as more women become qualified to enter the workforce (World Bank, 2008). This can increase the competitiveness of jobs, causing higher unemployment. In countries like Saudi Arabia, with strict gender segregation in the workplace<sup>20</sup>, firms may incur higher labor costs if they hire women because of the extra workspace needed.

What are the other consequences for women in oil rich countries like Saudi Arabia? Scholars argue that the large number of women starting to enter the workforce would take away from male jobs, though empirical evidence argues this is not the case (World Bank Gender Report, 2010). Unemployment among male nationals does remain persistently high in oil-exporting countries, but this can be contributed to a distorted labor market due to expatriate labor, rather than

---

<sup>20</sup> Employers are required to have separate workspaces for female employees, sometimes even having completely female work areas.

competition from women seeking employment. Large expatriate labor populations may constrain employment opportunities for women, making jobs more competitive among women and leading to many women becoming discouraged workers. Women may feel this competitive effect more intensely than men, due to a smaller number of acceptable occupations compared to men.

Another explanation is that if the educated labor supply has dramatically increased in the Middle East region, demand has remained stagnant, therefore lowering the returns to education on labor market participation (Pritchett, 2001). Particularly in oil-driven economies such as Saudi Arabia, the growth in employment tends to be in construction or services (serving affluent nationals) and will exacerbate the mismatch between supply and demand for labor (Economist Intelligence Unit, 2009).

Pritchett (1999) found that administrative civil servants in the public sector do not significantly contribute to economic growth and can actually reduce economic growth if workers use their privileges to obtain rent for themselves. This research indicates that public sector employment may have negative externalities on labor markets and economic growth, affecting unemployment rates and job opportunities. Though this relationship is not exactly clear, Pissarides (2000) estimated that the MENA region lost 8.4% of GDP growth due to public administration employment from 1985 – 1995. This may correspond with stagnant demand in labor, as public sectors with a large number of administrative civil servants may negatively affect growth.

Women in the Middle East may have higher reservation wages that deter them from entering the workforce, hence lowering returns to education. Oil can be a main driver of higher reservation wages, particularly in GCC countries, as oil rent exacerbates a large public sector with generous benefits and salaries. As women obtain higher education, the expectations of high status future employment increase, and lead to women having unrealistic job expectations given the current demand.

The Gulf governments have provided well-paid public sector jobs, with salaries several times higher than private-sector equivalent jobs, shorter working hours, longer holidays, and generous pension packages that are highly desired (Forstenlechner, 2010). This government guarantee of a public sector job resulted in a highly segmented labor market in GCC countries. Nationals are willing to wait several years for a job in the government rather than take one in the private sector. The pride and prestige associated with the public sector makes the private sector seem inappropriate, particularly to women. They tend to seek employment in the public sector in higher numbers due to a more standardized procedure of hiring and wage setting, yet this contributes to the occupational segmentation and wage discrimination both across gender and the public and private sector<sup>21</sup>.

An informal theory of a “social contract” has long been discussed in the Middle East, which is the idea that generous social benefits and subsidies are provided by oil-rich Middle East countries (such as the GCC) in return for low political participation or voice. These social contracts have brought stability and

---

<sup>21</sup> *The Road Not Traveled*. World Bank MENA Development Report (2008)

impressive human development to the region, but are characterized by large public sectors, weak government accountability and transparency, and generous subsidies. These social benefits are generous, including few or no actual taxes, free education, health care, housing assistance, and free or discounted gas and utilities. These benefits have been a driver of increasing life expectancy and decreasing fertility rates in these countries as well as stability.

In oil-rich countries such as Saudi Arabia, the public sector is more widely viewed as acceptable and respectable and draws higher numbers of women than the private sector, making public jobs competitive. The public sector usually offers better working hours, allowing women to balance a career and family life by leaving earlier in the day and having generous maternity leave policies. The preference of women to work in the public sector decreases the incentives for women to focus on jobs that fall outside of normal conceptions of gender roles.

Public sector employment has greatly increased since the influx of oil wealth in the 1970's. The World Bank's Report on MENA Education Reform (2008) sees the rise of public sector employment a key reason of segmented labor markets in the region. Public sector employment tends to cause segmentation not only along national-expatriate lines but also tends to employ more women and educated workers than other industries. In 2000, MENA as a whole had 29% of employment located in the public sector, with Saudi Arabia at 79% (with other GCC countries having even higher percentages).

Mammen and Paxson (2000) find that the prevailing female wage rate and nonwage income are key determinants of women's decision to enter the workforce

in Western countries. As the female wage rate rises, a substitution effect occurs, as women will substitute other activities with labor as the opportunity cost of not working rises. An opposing income effect occurs with nonwage income, which is the income from other members of the household (particularly the husband). This income effect raises women's reservation wage, or the amount she is willing to accept to enter the work force.

These two opposing income and substitution effects can be ambiguous and depends on the strength of each effect. When labor is segregated (for example, by gender), wages will be different for men and women. Ross (2008) argues that if labor markets are segregated, when oil is discovered in an economy, male wages will increase more than female wages due to a move towards male-dominated sectors, such as construction. This makes the income effect stronger for women, discouraging women from working, as well as increasing male-dominated sectors, which will further exclude women from the labor market.

Though Ross' argument has some validity, its conclusions are broad and widespread. Saudi Arabia's labor markets, though exhibiting segmentation, are not particularly skewed towards male-dominated jobs. Although the private sector tends to see growth in construction and low-paying service jobs, Saudi nationals rarely participate in these private sector jobs. Over 8.4 million expatriate laborers live and work in Saudi Arabia every day, in employment not desired by Saudi nationals or that requires skills sets nationals do not have. Nationals instead seek employment in the large public sector, which has tried to absorb the growing workforce.

Although Saudi women have had access to higher education more than ever before, they are still be limited in what sectors they can enter. Government policies prevented women from studying subjects such as engineering until only recently, limiting women's labor market mobility (Metcalf, 2007). Though these policies have been changed, women still tend to cluster in social sciences, education, and health.

Due to a distorted labor market in Saudi Arabia, there may be limited opportunities for educated workers to find employment in a competitive, private-sector industry. This in particular becomes more difficult as education rises, which will lead to an increase in the individual's reservation wage. A World Bank report contributes to this argument, as a study on FLMP in Pakistan found that the likelihood of women not working increases with education. This is due to an increased willingness to wait for higher paying jobs or better job opportunities, which is seen in high unemployment numbers for women with mid to high levels of education<sup>22</sup>.

Labor markets in MENA on the whole tend to be highly segmented, with women more likely to cluster into occupations such as medicine, education, and public sector employment. This is due to both social barriers and segregated education systems. Women are much more likely to study health, education, and other soft sciences in universities compared to engineering, sciences, or math (World Bank, 2008). Though in Saudi Arabia this was due to government policies, cultural and societal norms also make these subjects more acceptable and

---

<sup>22</sup> World Bank MENA Education Reform Report (2008)

appropriate for women. This clustering among certain occupations will decrease the demand for those occupations, and raise competition among women for a smaller supply of jobs.

Traditional gender appropriate fields of study (such as medicine or education) may not yield as high returns in the labor market, decreasing the returns of investment in education (Tembon and Fort, 2008). An Egyptian youth survey found that women are significantly less likely to study in fields such as business, economics, and engineering (World Bank, 2010), though an increasing number of schools are becoming co-educational, which may improve the number of educational options available to women. This increase in access to other fields of study will be of benefit to women when joining the work force, though this change will be slow due to the social norms still associated with certain professions.

Labor demand is high in oil-exporting countries, but private sector employers are seeking a different skill set than what education systems are producing. The incentive to work in the public sector may influence students' decisions on which subjects to study, with students studying areas most fitted to work in bureaucracies (World Bank Education Reform Report, 2008). A Middle East and North African Education Report published in 2010 found the region's education systems as a whole to be inadequate to equip students with the skills and knowledge necessary to compete in a global market.

Geographic mobility is also restricted, and women can find it difficult to find transportation to and from work. Banned from driving, women also need male permission to leave their local neighborhoods (though this is often not as strictly



enforced). Public transportation can also be difficult to access, as women have separate seating areas and some bus companies do not allow women at all. In the last two years, the government has initiated a women-only bus system, which will make commuting easier for women. This lack of geographic mobility will affect the women's opportunities for employment, and can add to both the discouraged worker effect and labor market mismatches, as the costs are too high for women to either find or retain work.

In Turkey, data show that unemployment is high among young, educated women. This may be due to a decrease in real wages or a competitive work environment that may cause discouraged workers. Some scholars have suggested that an increase in the labor supply due to more women entering the labor market has caused the high unemployment that characterizes the country. Turkey's chronic unemployment should not be overlooked, and studies indicate that the urban female unemployment rate is underestimated (Tansel, 2002). The discouraged worker effect, where an individual will exit the labor market due to a lack of preferred employment, is likely to be much greater than rates indicate.

Employment growth in specific industries can also affect hiring opportunities for women. A study on FLMP in Turkey found that export-oriented growth did improve the probability of employment for women, corresponding to the idea of "feminization in the labor force" as more jobs became available (and appropriate) for women (Baslevent, 2004). Yet, this positive effect was only limited to industries already somewhat female-dominated and most significantly affected married women, with no real effect for single women. Overall, Baslevent concludes that a

focus on the growth of export-oriented sectors does not have strong labor market participation effect for the majority of the female population, and instead looks to employment growth and policy changes as a way to increase FLMP.

Do women simply not want to work after leaving school? Surveys conducted throughout the Middle East would suggest that women do have a desire to work, though women may become discouraged due to a lack of available employment. A World Bank survey of Jordanian community college graduates in 2010 show that 90% of females' surveyed expressed interest in joining the labor force after graduation, though Jordan's female employment rate remains at 12% (Bridging the Gap World Bank Report, 2010).

Alternative explanations of why women may obtain an education but not join the workforce exist. Do women attend universities as a means of putting off marriage? Do they seek the increased social freedom tertiary education offers? Based on limited surveys on Middle Eastern women's attitudes towards work, as well as the author's own personal conversations with women from the region, it is assumed that women do attend college with labor market aspirations and goals. Although higher education may offer other benefits besides economic payoffs, this is considered to be the main reason women would seek tertiary education. More research into women's motivations for attending college would benefit the discussion regarding low FLMP and returns to education.

Economic returns to education may remain low due to cultural barriers in the region. Patriarchal structures can contribute to low FLMP, and discourage women from working in specific sectors. When males are seen as the primary

breadwinners, a women's role is limited raising children and household activities. Patriarchal structures reinforce traditional gender roles, and this can have a powerful influence on how women behave in society and the workplace. This can also prevent women from receiving promotions, as it may be difficult for a woman to have men working under her.

Commonly cited cultural norms in the region include mobility restrictions for women; the expected domestic role of women in raising children and maintaining the household; and codes of modesty that come from Islamic law. Saudi Arabia, as one of the most traditional MENA countries, is an example of how cultural norms may be a barrier to women's LMP, as women are limited in both geographic and labor mobility, adhere to strict rules regarding dress, and have restricted rights and independence.

Psacharopoulos and Tzannatos (1989) found a negative correlation between religion and FLMP rates. In their study, they found that religion (defined as more than 30% of the population) accounts for more than one third of the differences between FLMP in a study of ninety countries, in particular reducing rates by 50% in Muslim countries. This may be to cultural norms commonly linked with Islamic states and predominately found in Middle East traditions.

Norris and Inglehart examined the beliefs and values of 75 societies from the 1995-2001 World Values Study and found a difference in women's place in society between Islamic and non-Islamic societies (Norris and Inglehart, 2002). They find the biggest difference between Islam and the West to be gender equality, particularly as Western societies have become more liberal in recent generations

compared to the traditional views on women that are dominantly found in Islamic societies. Although the predominance of Islam in the Middle East has an effect on the cultural values and norms in society, one cannot simplify the low economic returns to education by pointing to the traditional values Islam may encourage.

Evidence does point to changing cultural attitudes towards women in the workforce, particularly among the next generation. A 2008 survey of Arab youth found that 73% of Arab women and 58% of Arab men believe that women should have the same opportunities as men for professional advancement (Economist Intelligence Unit, 2009). Though there are signs of changing attitudes, women in the Turkey and Saudi Arabia will still enter the work force with different career expectations from men, while the influence of family and the wider society will pose a significant impact on available job opportunities for women.

These cultural attitudes discouraging female economic participation may be more subtly reflected in Turkish society. Although Turkey has a secular constitution, guaranteeing women's rights, this may help explain some of Turkey's low FLMP. In 1934, Turkey was among one of the first countries in the world to grant full political rights to women. Although Turkish laws grants women may freedoms not seen in many MENA countries, traditional attitudes about women still prevail, particularly in Eastern and Southeastern regions. Social customs have been slow to change and the low FLMP reflects that these norms may not have been fully accepted into Turkish culture. Turkey's highly polarized society of urban and rural populations, which often hold differing views, has created varying perspectives on women's economic participation.

Low female representation in Turkish politics contributes to evidence that norms of women's rights have not truly permeated into society. The traditional patriarchal value system that exists is in contrast to the legal framework regarding women's economic rights. In a poll conducted in 2008 by the Women Entrepreneurs Association of Turkey (KAGIDER), 45% of women disagreed with the statement that women should have economic independence. Although another 45% agreed with the statement, this underlying norm may contribute to few women joining the workplace.

In addition, this patriarchal view has seemingly increased with Turkey's new generation. The same poll, representing 13.8 million urban women, showed that a higher ratio (almost 50%) of women between the ages of 15 and 19 believed that a woman's place was at home compared to women in between the age of 40 and 49. It may suggest that the costs to obtaining a job in the labor market have remained high enough to discourage the next generation of women from seeking labor market entry. The attitude of women in regards to the labor market remains somewhat paradoxical, as women are still bound by cultural and societal norms, yet some do have a desire to seek employment and new job opportunities.

Turkey has seen the expected U-Shaped Female Labor Market Participation curve over the last two decades, yet overall FLMP remains low compared to the rest of the world and other similar regions. This leads to the conclusion that although education does have expected economic benefits, they have remained low in Turkey due to cultural norms against female economic participation and continued segmented labor markets, which constrain women's employment opportunities.

When looking at Saudi Arabian labor markets, the effect of oil may have indirect effects on FLMP. Arguments have been made the oil-dependent economies may contribute to a patriarchal society, which may limit women's participation in the economic sphere. During development, women often enter into the labor market through export-oriented manufacturing (textiles and garments) and agriculture. An oil-based economy may favor male labor, diminishing women's participation and enforcing patriarchal norms and institutions. Looking at Norway's development and high gender equality, the presence of oil does not seem to necessarily lead to patriarchal norms or the exclusion of women in the workforce. In 2010, Norway's FLMP was 62% and has remained above 55% since 1990. Lerner (1958) argued that the type of economic growth could affect gender relations. Studies have argued that industrialization (usually through the growth of textile or similar industries) tends to generally benefit women while oil-extraction does not (Mammen and Paxson, 2000).

Democracy is often viewed as a promoter of equality and women's empowerment and has been used as another explanation of low FLMP in the Middle East. A positive correlation between democracy and FLMP has been shown, particularly in Muslim countries (Spierings et al. 2008). In the study, Spierings found political opportunity structures (such as democratic institutions) as the most important determinant of FLMP. Furthermore, a negative correlation between Orthodox Islam and democracy was found, leading to an indirect negative effect on women. The purpose of this paper is not to examine Islam and democracy, but it is

worth noting that the predominance of Islam in the Middle East does shape the norms, traditions, and institutions of each country and may affect FLMP.

Though democracy may have positive effects on FLMP, democratic institutions do not seem sufficient to encourage FLMP. Spierings' study contradicts what is found in many nondemocratic countries, which is relatively high female labor force participation rates. China is an example of a nondemocratic state where FLMP has hovered around 68% in the last ten years (World Development Indicators, 2012). Latin American countries, rocky democracies, on average have FLMP rates around 50% to 53% (World Development Indicators, 2012). Turkey, a secular democracy, has not seen significant growth in FLMP rates over the last thirty years, contradicting the idea that democracy is the main determinant of FLMP. The banning of the hijab in 1997 did not correspond with an increase in FLMP during that time period, further addressing the argument that Islam itself affects FLMP negatively.

Another explanation of low FLMP in the Middle East is potential government institutions and policies that make female employment more difficult. Maternal leave policies that discourage women from staying in the workforce (Gunduz-Hosgor and Smits, 2008) and a lack of flexible work arrangements (women in Turkey and Saudi Arabia are limited in the number of hours they can work) may lead to low FLMP. In Turkey, women can be hard pressed to afford childcare services at work, contributing to women leaving the workforce once they start a family<sup>23</sup>.

---

<sup>23</sup> World Bank Report No. 33254-TR: Turkey's Labor Statistics

Although it would be beneficial for Saudi Arabia and Turkey (along with the Middle East in general) to adjust existing labor and maternity policies, and would most likely improve FLMP in a small way, it does not seem feasible for these policies alone to be cause of the continuing low FLMP seen in the region. Although these make finding employment for women more difficult, these policies are not restrictive enough to keep FLMP at rates under 25% in the region.

## **Conclusion**

Women's economic participation is not only relevant to economic growth and productivity, but also women's empowerment in decision-making, fertility choices, agency, and overall human development. This area of research is important not just for women but also for the development of the Middle East and integration into global society. Low FLMP has a high cost to the economy and the families, as analyses on cross-country data suggest as countries develop, increased FLMP leads to faster growth income (World Bank, 2004). A decreasing economic gap between men and women is associated with poverty reduction, higher GDP, and better governance (World Bank, 2001). Simulations from the World Bank point to a 15% poverty reduction in Turkey alone if FLMP increased from 23% to 29% due to increased household income and intra-household decision-making power.

Education is still a crucial driver of labor market participation, development, and societal progress. Its potential rewards are great, having been seen in the development of many countries around the world. Though education can drive increases in labor market participation and productivity, the economic returns to



education have been low for women in Saudi Arabia and Turkey. Institutional and policy barriers, labor market segmentations, and persistent patriarchal cultural norms have prevented returns from female education from being higher. In Saudi Arabia, oil wealth contributes to public sector employment, which has created distorted labor markets and unrealistic reservation wages. In Turkey, highly segmented labor markets and polarization among women in the labor market have led to high unemployment and discouraged workers in Turkey. Chronic unemployment for men as well has not helped women gain entry into typically male dominated jobs.

This paper presents a preliminary look at the effect of education on labor market outcomes in both Saudi Arabia and Turkey, while drawing on the general employment patterns of women in the region as a whole. It is meant to be an overview of the female education systems and corresponding labor market structures, and examines aggregate education and labor market participation rates for two important countries in the Middle East region.

The research was confined by data limitations, as no reliable household data exists for either country. Saudi Arabia has some years with missing data, which makes it harder to analyze trends over time. Because of the lack of individual data, one cannot establish the direct effect that education has on labor market outcomes for women. The Middle East as a region is used as a proxy for Saudi Arabia and Turkey when there is a significant amount of missing data, as the MENA region exhibits similar education and FLMP rates. Even with these limitations, a picture of

how education has had limited effects on FLMP in Turkey and Saudi Arabia, and on the Middle East region as a whole, can still be seen.

Turkey and Saudi Arabia are often considered the opposite ends of the Middle East spectrum. Turkey has a political system resembling a democracy, with liberal women's rights, and a growing industrialized urban sector. Access to education has increased, though this access remains unequal between genders and among women. Though many urban areas of Turkey have the same cultural attitudes that might be found in Western Europe, other areas are much more traditional, with an agricultural-based economy and lower educational rates. This urban-rural divide has created segmented labor markets, with formal and informal employment, which has kept many women employed in vulnerable, part-time, or informal jobs.

Saudi Arabia, on the other hand, presents a picture of an oil-abundant country, with an economy driven by oil wealth financing a large public sector. Heavily seeped in tradition, women still lack many basic rights and have limited social and economic mobility. These restrictive policies, cultural norms, and heavily skewed labor market affect FLMP in ways different from Turkey, although the outcomes are similar – persistently low FLMP particularly given the increase in educational attainment and quality in both countries.

More research into why education has not had the expected labor market outcomes in the Middle East, as well as governmental policies that would lower these barriers, is needed to help women integrate fully into labor markets. Though this paper discusses the potential link between education and FLMP, it has not

established the casual effect of education on FLMP because of time and data limitations.

Rather, this paper seeks to show that increased education has not been a driver of FLMP in the Middle East, and alone is not sufficient to increase labor market access for women. It seems clear that women have a desire to work in Turkey and Saudi Arabia, yet segmented labor markets and imbalances in both countries as well as continuing cultural norms about female roles in society have been two main barriers to female labor market access. These factors must be addressed to allow women economic opportunities and contribute to economic growth.

One aspect of this paper that would benefit from further research is the attitudes of women in Saudi Arabia and Turkey regarding work. Although this paper sought to address the attitude of Middle Eastern women towards joining the labor force, more research is needed to understand the value these women place in their jobs. As this paper is written from a female Western perspective, there are biases regarding female labor market participation. Increased labor market participation is assumed here to be a benefit for society, as well as empowering and fulfilling for women based on the author's Western beliefs and values.

Examining how much value women in the Middle East place in finding employment would likely add interesting ideas to the discussion. This author assumes that women are seeking employment in the Middle East, based on beliefs in the importance of joining the labor force, though it should be acknowledge that

perhaps women in the Middle East find less importance in work, therefore invest less time seeking employment.

## Bibliography

- Barro, R. (1990). Government Spending in a Simple Model of Engodeneous Growth. *Journal of Political Economy*, 98(S5), 103 - 125.
- Cem Baslevant, O. O. (2004). The Effect of Export-Oriented Growth on Female Labor Market Outcomes in Turkey. *World Development*, 32(8), 1375 - 1393.
- Davies, C. (2012 June). Mideast Women Beat Men in Education, Lose Out in Work. *CNN*.
- Duman, A. (2009). Female Education Inequality in Turkey: Factors Affecting Girls' Schooling. *Central European University working paper*, 1 - 24.
- Economist Intelligence Unit. (2009). *The GCC in 2020: The Gulf and its People*. The Economist.
- Erdal Aydin, M. H. (2010). Formal versus Informal Labor Market Segmentation in Turkey. *Loyola University of Chicago working paper*, 1 - 43.
- Fort, M. T. (Ed.). (2008). *Girls Education in the 21st Century: Gender Equality, Empowerment, and Economic Growth*. World Bank.
- Gatti, D. D. (1999). *Gender Inequality, Income, and Growth: Are Good Times Good For Women?* The World Bank Development Research Group Working Paper Series No. 1.
- ILO. (2010). *Women in Labor and Employment in Turkey: Measuring Progress and Identifying Challenges*. The International Labour Organization.
- Ince, M. (2012). The Role of Female Education in Economic Development: A Case for Turkey. *Education Research and Review*, 8(1), 1 - 16.
- Inglehart, P. N. (2002). Islam & the West: Testing the Clash of Civilization Thesis. *Harvard University Faculty Research Working Papers Series*.
- International Labour Organization. (2010). *Key Indicators of the Labor Market (KILM)*. United Nations.
- KEIG. (2009). *Women's Labor and Employment in Turkey: Problem Areas and Policy Suggestions*. Women's Labor and Employment Initiative Platform.
- Lerner, D. (1958). *The Passing of Traditional Society: Modernizing the Middle East*. Free Press.

- Looney, R. (2004). Petroeuros: A Threat to US Interests in the Gulf? *Middle East Policy*, 11(1), 26 - 37.
- Lucas, R. (1988). On the Mechanics of Economic Development. *Journal of Monetary Economics*, 22(1), 3 - 42.
- McNally, S. M. (2007). Tertiary Education Systems and Labour Markets. *Education and Training Policy Division, OECD*.
- Metcalfe, B. D. (2007). Gender and Human Resource Management in the Middle East. *International Journal of Human Resource Management*, 18(1), 54 - 74.
- Mincer, J. (1958). Investment in Human Capital and Personal Income Distribution. *The Journal of Political Economy*, 66(4), 281 - 302.
- OECD. (2012). *OECD Better Life Index*.
- Oosterbeek, E. L. (2011). *Overeducation and Mismatch in the Labor Market*.
- Ozbay, F. (1994). Women's Labor in Rural and Urban Settings. *Bogazici Journal*, 8(2), 5 - 19.
- Paxson, K. M. (2000). Women's Work and Economic Development. *The Journal of Economic Perspectives*, 14(4), 141 - 164.
- Pike, M. (1982). Segregation by sex, earnings differentials and equal pay: an application of a job crowding model to UK data. *Applied Economics*, 14(5), 503 - 514.
- Pissarides, C. (2000). *Human Capital and Growth: A Synthesis Report*. OECD Development Center .
- Prichett, L. (1991). Has Education Had a Growth Payoff in the MENA Region? *Middle East and North Africa Working Paper 18*.
- Pritchett, L. (2001). Where Has All the Education Gone? *The World Bank Economic Review*, 15(3), 367-391.
- Romer, P. (1990). Human Capital and Growth: Theory and Evidence. *Carnegie-Rochester Conference Series on Public Policy*, 31(1), 251 - 286.
- Rosenzweig, M. (2010). Microeconomic Approaches to Development: Schooling, Learning, and Growth. *Journal of Economic Perspectives*, 24(3), 81-96.
- Ross, M. L. (2008). Oil, Islam, and Women. *The American Political Science Review*, 102(1), 107 - 123.

- Rutledge, I. F. (2010). Unemployment in the Gulf: Time to Update the Social Contract. *Middle East Policy*, 17(2), 38 - 51.
- Tansel, A. (2002). Economic Development and Female Labor Force Participation in Turkey: Time-Series Evidence and Cross-Providence Estimates. *Economic Research Center Working Papers*, 1 - 37.
- Temple, J. (1991). A Positive Effect of Human Capital on Growth. *Economics Letters*, 65(1), 131-132.
- Tzannatos, G. P. (1989). Female Labor Force Participation: An International Perspective. *World Bank Research Observer*, 4(2), 187 - 201.
- World Bank. (2008). *The Road Not Traveled: Education Reform in the Middle East and Africa*. MENA Development Report.
- World Bank. (2009). *Female Labor Force Participation in Turkey: Trends, Deterrents, and Policy Framework*.
- World Bank. (2010). *Bridging the Gap: Improving Capabilities and Expanding Opportunities for Women in the Middle East and North Africa Region*.
- World Bank. (2012). *World Development Indicators*. From [www.worldbank.org](http://www.worldbank.org).
- Yakut-Cakar, A. B. (2010). *Structural Change, the Social Policy Environment and Female Employment in Turkey*. Institute for the Study of Labor.